

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-23 (Cancelled)

24. (New) A method of preparing a paint to impart good tint strength and good viscosity stability to the paint, and impart good stain resistance to a paint film formed from the paint, said method comprising: mixing paint formulating ingredients with an aqueous coating composition comprising an anionically stabilized addition polymerized polymeric dispersion polymerized from a carboxylic acid containing ethylenically unsaturated monomer selected from the group consisting of acrylic acid and methacrylic acid, a hydrophobic aromatic ethylenically unsaturated high Tg monomer selected from the group consisting of styrene and alpha methyl styrene, and an C₂ - C₁₂ acrylate ester monomer, said ethylenically unsaturated monomers being selected such that:

(1) their relative proportions satisfy the following Equation:

$$a = \frac{5 + b}{(c + d / 2.4)^2}$$

where

a = 2 - 13,

b = weight percent hydrophobic aromatic high Tg monomer,

c = weight percent acrylic acid,

d = weight percent methacrylic acid; and

(2) the polymeric dispersion has a Tg of from -15°C to 30°C.

25. (New) The method of Claim 24, wherein the hydrophobic aromatic ethylenically unsaturated monomer is in the range of from 8% to 70%.

26. (New) The method of Claim 25, wherein the hydrophobic aromatic ethylenically unsaturated monomer is in the range of from 15% to 50%.

27. (New) The method of Claim 24, wherein the hydrophobic aromatic ethylenically unsaturated monomer is styrene.

28. (New) The method of Claim 24, wherein a in Equation (I) is in the range of from 2.5 to 9.5.

29. (New) The method of Claim 24, wherein the Tg of the polymeric dispersion is from -5°C to 30°C.

30. (New) The method of Claim 24, wherein the maximum number average particle size of the polymeric dispersion is 200 nanometers.

31. (New) The method of Claim 30, wherein the average particle size of the polymeric dispersion is less than or equal to 150 nanometers.

32. (New) The method of Claim 31, wherein the average particle size of the polymeric dispersion is less than or equal to 120 nanometers.

33. (New) A method of providing a substrate coated with a paint film which imparts good stain resistance, said method comprising:

(a) applying to the substrate a paint prepared by a method comprising preparing a paint to impart good tint strength and good viscosity stability to the paint, and impart good stain resistance to a paint film formed from the paint, said method comprising: mixing paint formulating ingredients with an aqueous coating composition comprising an anionically stabilized addition polymerized polymeric dispersion polymerized from a carboxylic acid containing ethylenically unsaturated monomer selected from the group consisting of acrylic acid and methacrylic acid, a hydrophobic aromatic ethylenically unsaturated high Tg monomer selected from the group consisting of styrene and alpha methyl styrene, and an C₂ - C₁₂ acrylate ester monomer, said ethylenically unsaturated monomers being selected such that:

(1) their relative proportions satisfy the following Equation:

$$a = \frac{5 + b}{(c + d / 2.4)^2}$$

where

a = 2 - 13,

b = weight percent hydrophobic aromatic high Tg monomer,

c = weight percent acrylic acid,

d = weight percent methacrylic acid; and

(2) the polymeric dispersion has a Tg of from -15°C to 30°C; and

(b) allowing the paint to dry to form the paint film.

34. (New) An anionically stabilised addition polymerised polymeric aqueous dispersion polymerised from a carboxylic acid containing ethylenically unsaturated monomer selected from acrylic acid and methacrylic acid, a hydrophobic aromatic ethylenically unsaturated high Tg monomer selected from styrene and alpha methyl styrene, and a C₂-C₁₂ acrylate ester monomer, said ethylenically unsaturated monomers being selected such that:

- (1) their relative proportions satisfy the following Equation (I)

$$a = \frac{5 + b}{(c + d/2.4)^2} \quad (I)$$

where

$$a = 2 - 13$$

b = weight percent hydrophobic aromatic high Tg monomer

c = weight percent acrylic acid

d = weight percent methacrylic acid, and

- (2) the polymeric dispersion has a Tg of from -15 to 30°C,
when used in preparing a paint so as to impart good tint strength and good viscosity stability to the paint, and impart good stain resistance to a paint film formed from the paint.

35. (New) An aqueous coating composition, comprising: a blend of low Tg and high Tg aqueous polymeric dispersions in a volume ratio of low Tg to high Tg polymer dispersion of from 0.4:1 to 3:1, wherein the polymer dispersion with low Tg has a Tg less than 0°C and the polymer dispersion with high Tg has a Tg of at least 25°C, and wherein the polymer dispersion with a high Tg is an anionically stabilized addition polymerized polymeric dispersion polymerized from a carboxylic acid containing ethylenically unsaturated monomer selected from the group consisting of acrylic acid and methacrylic acid, a hydrophobic aromatic ethylenically unsaturated high Tg monomer selected from the group consisting of styrene, vinyl toluene, and alpha methyl styrene, and a C₂-C₁₂ acrylate ester monomer, whereby the relative proportions of ethylenically unsaturated monomers are selected such that the following Equation is satisfied:

$$a = \frac{5 + b}{(c + d / 2.4)^2}$$

where

a = 2 – 13,

b = weight percent hydrophobic aromatic high Tg monomer,

c = weight percent acrylic acid, and

d = weight percent methacrylic acid.

36. (New) The aqueous coating composition of Claim 35, wherein the low Tg polymer dispersion is non-ionically stabilized.

37. (New) The aqueous coating composition of Claim 35, wherein the low Tg polymer dispersion is an anionically stabilized addition polymerized polymeric dispersion polymerized from a carboxylic acid containing ethylenically unsaturated monomer selected from the group consisting of acrylic acid and methacrylic acid, a hydrophobic aromatic ethylenically unsaturated high Tg monomer selected from the group consisting of styrene, vinyl toluene, and alpha methyl styrene, and a C₂-C₁₂ acrylate ester monomer, such that the relative proportions of ethylenically unsaturated monomers are selected such that the following Equation is satisfied:

$$a = \frac{5 + b}{(c + d / 2.4)^2}$$

where

a = 2 - 13,

b = weight percent hydrophobic aromatic high Tg monomer,

c = weight percent acrylic acid, and

d = weight percent methacrylic acid.